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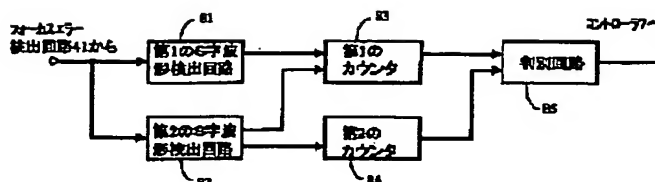
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INVENTOR : SUGAYA SATOSHI;

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TITLE : OPTICAL DISK RECORDING AND REPRODUCING DEVICE



**ABSTRACT :** **PROBLEM TO BE SOLVED:** To provide an optical disk recording and reproducing device which discriminates kinds of inserted optical disks of which substrate thickness and the number of recording layers are different, optimizes a recording and reproducing system in accordance with kinds of discriminated optical disk, and realize compatibility.

**SOLUTION:** In an optical disk recording and reproducing device provided with a means irradiating an optical disk with a laser spot and detecting a focus error signal utilizing the reflected light, the device is provided with a first S type waveform detecting circuit 81 detecting light reflected at the surface of an optical disk out of the S type waveform as the focus error signal, and a second S type waveform detecting circuit 82 detecting light reflected at a recording layer of the optical disk, in a discriminating circuit 85, thickness of a substrate is discriminated by an output of a first counter 83 counting from the first S type waveform to the second S type waveform, and the number of recording layers is discriminated by an output of a second counter 84 counting the S type waveform of after the second S type waveform. Discriminating optical disks of different kinds can be realized without performing special process for a sensor or an optical disk.

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